NEST Software suite - Technical datasheet

MONITORING AND DIAGNOSIS OF ROTATING MACHINES

Predictive maintenance is a powerful leverage of competitiveness for all industrialists. As its benefits are now undeniable, it is involving different people within a same company, working together on the same data, but at different steps of the process.

CENTRALIZED INFORMATION

NEST offers a unique presentation of a factory or multisite overview, centralizing data coming from different systems (portable, online), and multi physical information.

COLLABORATIVE PLATFORM

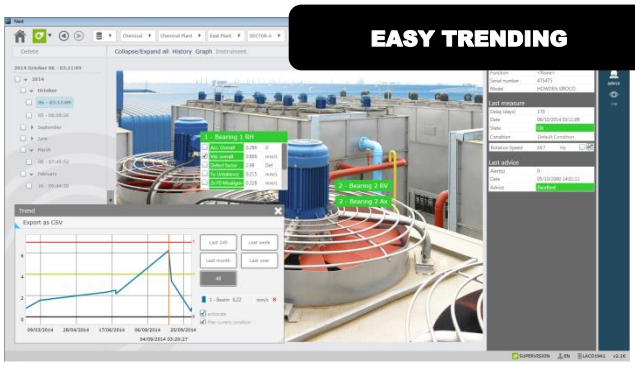
ONEPROD NEST is a modular software suite providing easy access to highly qualified information to all user profiles: Condition monitoring experts, Data collection personnel, Maintenance Supervisor, Reliability engineers, Instrumentalists… While working on the same data, they all benefit from the dedicated features available within ONEPROD NEST, thus providing them with the most productive condition monitoring tool of the market.

INTEGRATED INTO THE EXISTING INFORMATION SYSTEM

Providing all required interfaces, ONEPROD NEST allows factories to benefit from all that condition monitoring has to offer. Advanced qualified information can easily be shared through various interfaces or displayed in the control room.

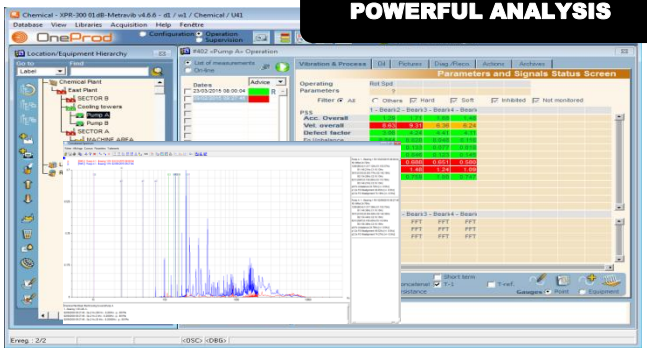
INTUITIVE ACCESS

EASY TRENDING



INSTANT REPORTING

POWERFUL ANALYSIS



General Specifications

Main modules	MACHINE SUPERVISION	Supervision is a native Web interface providing a very easy access to the condition monitoring information, switching in a few clicks from the top site view to the detailed reports. Supervision can be used from any computer connected to the local network of the ONEPROD NEST application server.
	MACHINE SETUP	Organize the data according to locations, sublocations, and easily define machines through the drag & drop tool that can be used according to 2 options (monitoring or automatic diagnosis)
		Monitoring mode: fast measurement generation using predefined templates delivered with the different instruments or customized by the user.
		Automatic diagnosis mode: automatic generation of the measurements required to perform automatic diagnosis with the FALCON portable data collector
	ANALYST	Powerful analysis module, with Easy, Advanced or Premium Automatic post-processing features
	COLLECT / COLLECTIONS	Define the routes, download them onto FALCON data collector, and upload them once the measurements are completed
	INSTRUMENT	MVX Online instrument fleet supervision from anywhere
	ADMINISTRATION	Manage the different user profiles and customize their access rights (functions and data)
		Manage virtual segmentation of the databases to provide an organized management of the global data and easy access
Centralized database	Multi source	Portable (FALCON, MVP-2EX), Online (EAGLE wireless sensor, MVX)
	Multi physical	Vibration, Process, Electrical, Oil, Thermography, Air gap / Magnetic Flux
Architecture	Local database version	A single database is installed on each computer.
	Intranet database version	A central database is hosted on an application server connected to the network. All users are directly working on the same data.
International application	Languages	English, French, Simplified Chinese, Korean, Russian, Portuguese, Spanish
	Units	Management of metric and imperial units
User assistance	Tooltip	Tooltips are displayed to provide more information on functions or buttons according to the modules
	Help menu	The help menu automatically presents to the user the detailed description of the function in use, as referred in the user manual.

Interfaces & Data exchange

ONEPROD NEST provides various standard interfaces, making the outputs of predictive maintenance easy to share with third systems (PLC, analytics systems…).

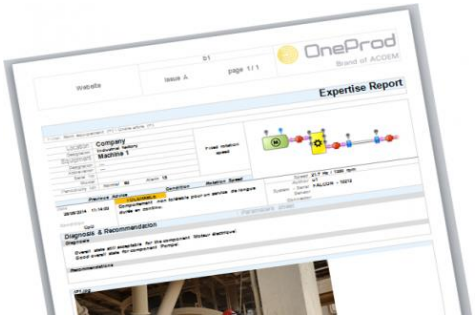
OPC Server (option)	Parameter information	All parameter-related information can be published in the standard OPC format: - Parameter value (stored from instrument or post-processed from the software) with timestamp - Parameter threshold value
	Machine information	Machine-related information can be published in the standard OPC format: - Machine global alarm status - Machine expert advice
Data exchange	Import / Export	Easily share data between several ONEPROD NEST databases within the same or different factories.

Automatic reporting capabilities

To improve maintenance planning and operations, one needs to be able to display in a very easy way:

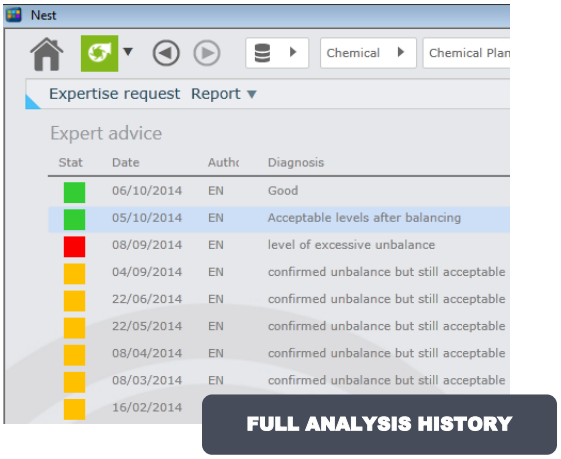
- what has been detected through predictive maintenance technologies
- what has to be done
- when it should be done

ONEPROD NEST provides full reporting capabilities, automatically illustrated and easily accessible.



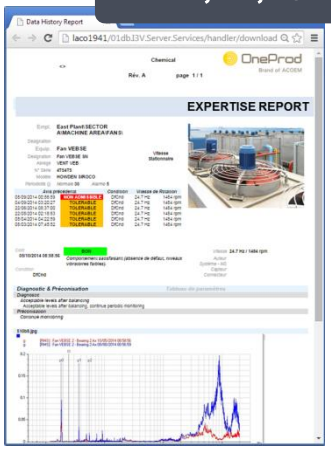
Analysis reports	Automatic reporting	Reports are automatically generated just in a touch of a button. They are available at any time, for a single machine, a multiple selection, a predefined list of machines, or a whole factory.
	Format	HTML, PDF, or WORD compatible format (RTF).
	Automatic picture insertion (option)	Machine pictures, pictures attached in appendix (analysis, thermographic) or taken with FALCON data collector, are automatically printed out in the reports.
	Hide / display parameter	Advanced parameters can be hidden automatically and not be printed out in the reports. They remain fully available in the ANALYST module for the expert users.
Web interface	SUPERVISION Module	The expert advice and recommendations are accessible through the simplified ADVICE view of NEST SUPERVISION module in read-only mode. Reports can be exported in HMTL, PDF or WORD compatible format
Customization	Content	Selectable content : Synthesis Information, Measurement Setup, Diagnosis & Recommendation, Analysis, Measurement History, Maintenance History, list of machines with status
	Report profiles	Several report profiles can be memorized according to the content selection
	Layout	Customizable layout, including the possibility to add your own logos
	Template customization	All templates of prelisted report types can be modified to manage the content automatically extracted from the database.
	Logo	Templates customisation includes the modification of the logo printed out on the report.
Statistics	Automatic statistical reports	Measurement and analysis activity
		List of equipment with expertise summary and access to full expertise report (possible sorting by advice)
		Statistics on defects detected per equipment (possible sorting by anomaly level)
		Status by equipment type
		Status by equipment function
		Statistics on equipment defects
		Monitoring of the number of defects
		Statistics on experts' advice
		Monitoring of experts' advice
		Statistics on alarm status
		Monitoring of alarm status / equipment

ACCESSIBLE FROM ANY COMPUTER CONNECTED TO THE NETWORK



FULL ANALYSIS HISTORY

HTML, PDF, WORD



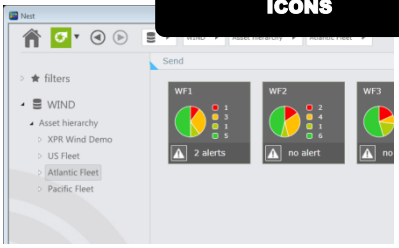
Data Presentation

ONEPROD NEST offers a user-friendly interface, providing an easy access to relevant information, whatever the number of machines monitored is, and whoever is using the software.

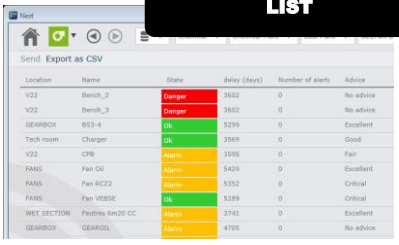
Structure	Data structure	Within a single database, it is possible to organize machines into several locations and sub locations to have them displayed in a quick and easy format. The data structure is common to all users and modules
	Data browsing tools	The navigation from the top site view to the detailed analysis view and reports can be made through different ways. One or several tools are available according to the NEST module in use: - Classic drill-in - Navigation toolbar - Tree structure
Presentation	Location picture	Pictures can be added to locations and sub locations
	Machine position	The machine can be positioned on the location picture to provide an easy access to the machine monitoring data
	Machine picture	Picture of the machine can be added for a better presentation of the results. If none is available, a schematic view can automatically be generated from the MACHINE SETUP module.
	Measurement point position	Measurement points can be positioned on the machine picture or schematics to provide a very visual presentation of the results.
Display modes	Map mode	Display on a map or image for a navigation that is as visual and intuitive as possible
	Icons	Display as icons for a better balance between detailed information and visual information
	List	Display as a list, for maximum details and multiple sorting possibilities for the available information
	Tree structure	A tree structure is also available in all NEST modules
Machine information	Bearing reference	The machine bearings can be selected from the bearing database. Bearing characteristics are then automatically imported and frequencies of interests automatically displayed in the graphic tool
	Custom. bearing	The bearing database can be manually completed by the end user, if the bearing reference cannot be found.
	File attachment	Documents such as drawings or other document that might be useful at the analysis step can be attached to each machine
	User notes	One can input written description notes associated to each machine.
Data mining	Type of information displayed	The machines can be displayed according to several types of information in the SUPERVISION module, in order to help the user quickly finding machines of interest: - The ADVICE view presents the machines according to the expert advice - The ALARM view presents the machines according to their alarm status - The LIVE view presents the machines according to the last online information available (only available for online systems)
	SUPERVISION Module FLAT view	The SUPERVISION FLAT view corresponds to the powerful capability of displaying a whole factory into a single view. It is then possible to sort the machines displayed according to several criteria
	Filter on machines	Filters can be applied on machines from the NEST ANALYST and NEST SUPERVISION modules to only display given machines, with selectable filter options: - according to the alarm status - according to the expert advice - machine that may not have been measured for a while - machines belonging to a predefined route or list of favourites
	Filter on measurement history	Filters can be automatically applied on the measurement history of a given machine to enable productive analysis. The applicable filters are declined according the data filters tags available
	Data filter tags	Operating condition
		Expert advice
		Documents attached
		Measurement completion (for portable data collection)
		Type of event that trigged the measurement (for online system): Periodic, on alarm occurrence, on operating condition appearance, manually trigged

MAP

ICONS



LIST



Portable data collection dedicated features

ONEPROD NEST provides all features required to organize the assets into data collection routes.

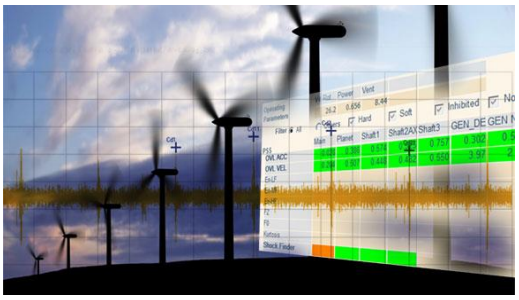
The routes contain all information required to make productive and easy measurements: location pictures, machines pictures, machines and measurement points' position on the pictures...

Route creation	Definition of the list of machines	Selection of the machines contained in a route
	Modification of the order of the measurement points	It is possible to rearrange the order of the measurement points so that they are presented automatically in the most productive way once the operator is in front of the machine.
	Split machines	As the focus is given to the measurement points, it is possible to split machines in the data collection process (e.g. measuring of machine A and B on the left side, before measuring machine A and B on the right side…)
Quick launch	Single machine	A quick launch feature is provided to send a machine to a FALCON portable data collector by touching a button, without pre-creating a route. It makes it very convenient for quick testing.
	Multiple machines	It is possible to send several machines at once in this mode. The machines are displayed as individual machines and not as part of the same route.
Transfer mode	Direct USB connection	The files are transferred to a FALCON connected directly to the computer with its USB cable
	Local network	The files are transferred to a FALCON connected to the network with an Ethernet plug or through a Wi-Fi connection.
	Transfer through intermediate files	The use of intermediate files allows for transferring routes through a USB stick, and, for example, after a transfer by e-mail
Route setup pictures	Automatic insertion of pictures taken with FALCON	FALCON offers the unique possibility to add route related pictures to the machine setup. Once a picture of a machine or location is taken on the field with FALCON, it is automatically uploaded and stored into the NEST software when the measurement data are uploaded.
Route related information	Audio note	Audio notes recorded on the field while measuring with FALCON are automatically uploaded to the NEST database and available to any user at the analysis step
	Written note	Audio notes typed in the field while measuring with FALCON are automatically uploaded to the NEST database and available to any user at the analysis step. Written notes can be automatically printed in the data collection reports.
	Inspection picture	Inspection pictures taken in the field while measuring with FALCON are automatically uploaded to the NEST database, available to any user at the analysis step, and printed out automatically in the reports.

Online monitoring dedicated features

When it comes to online monitoring, if not properly configured, the amount of data to analyse could make the monitoring ineffective. ONEPROD NEST provides all features required to catch the right data at the right time and avoid false alarms.

Moreover, ONEPROD NEST offers dedicated features allowing for an accurate monitoring of variable speed machines. Diagnosis is then as easy to achieve as for stationary speed machines.



Variable speed machines	Management of operating conditions	Up to 10 operating parameters (speed, power…) can be used to define an operating condition.
		Several operating conditions can be defined for each machine
Reading of operating parameters	OPC client	ONEPROD NEST can manage an OPC Client to receive process information to be sent to the MVX online monitoring system. No need to double the existing instrumentation.
	Modbus numerical inputs	ONEPROD NEST can manage a Modbus interface to receive process information to be sent to the EAGLE or MVX online monitoring systems for operating condition management purposes.
False alarm prevention	Management of operating condition	Indicators and alarm thresholds can be adjusted for each operating condition of a given variable speed machine
	Hysteresis	Hysteresis threshold can be managed according to the instrument capabilities
Notifications	Email	Sending of e-mail on alarm status change
	Event log file	Listing of all monitoring events. Events must be acknowledged.
	Alarm counter	Alarm counting is available from the Supervision module. The alarm counter is automatically reset if the alarm messages are acknowledged or if an expert filled in his/her advice tag

Assistance to setup

ONEPROD NEST offers all tools required to perform fast and easy measurement setup.

The FALCON automatic diagnosis capabilities, coupled to the NEST automatic measurement setup, puts vibration analysis at the grasp of anyone, but ONEPROD NEST also offers various productivity tools for expert users.

Automatic setup	Automatic setup for FALCON automatic diagnosis	The drag & drop tool of the NEST MACHINE SETUP module allows for an easy graphic description of the machine. The measurements required to perform FALCON automatic diagnosis are then automatically generated.
	Automatic setup from templates	The drag & drop tool of the NEST MACHINE SETUP module allows for an easy graphic description of the machine. The measurement generated can be automatically generated from templates: either supplied by ACOEM according to the instrument in use, or pre-defined by an expert user.
	Triaxial / uniaxial measurements	The automatic setup can automatically take into account the type of sensor
	Available components in the drag & drop tool	

Driver:
- Motor

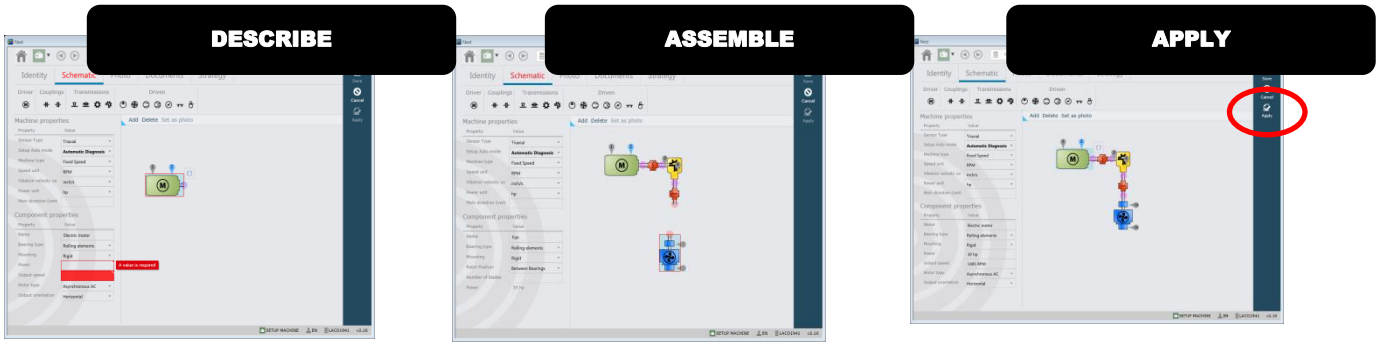
Coupling:
- Flexible coupling
- Rigid coupling

Transmission:
- Belt/pulley transmission
- Chain transmission
- Gearbox transmission
- Angular or bevel gearbox transmission

Driven component:
- Pump
- Fan
- Centrifugal compressor
- Lobe compressor
- Alternator or generator
- Shaft
- Roller

Other machines may be configured manually through the ANALYST module advanced setup mode

Templates	Measurement point templates	Measurement points templates (signals and parameters) can be defined for faster manual setup on several machines
	Parameter templates	Measurement parameter template can be defined, with or without its alarm thresholds, for faster manual setup on several machines
	Signal templates	Measurement signal template can be defined for faster manual setup on several machines
	Machine copy / paste	It is very easy to create one or several machines at a time just by simple copy/paste of other machines
Threshold setup	Threshold setup per operating condition	The thresholds can be adjusted for each operating condition of variable speed machines. The threshold setup windows can be opened from the 2DG matrix view, thus making it very easy to achieve for given parameters.
	Automatic threshold setup wizard	An automatic threshold setup wizard is provided with the NEST ANALYST module. It takes into account customizable inputs from the end user to automatically calculate alarm thresholds based on the measurement history present in the database.
Massive modification tool	Search & modify tool	The Search and Modify tool allows for change in the setup of a given parameter or signal on an important number of machines, just by a touch of a button, e.g., changing the alarm threshold of one parameter on several similar machines can be done just in one click.



Analysis & diagnosis capabilities

When it comes to analysis and diagnosis, ONEPROD NEST ANALYST is certainly the most productive tool on the market, featuring the unique Defect Detection Grid presentation.

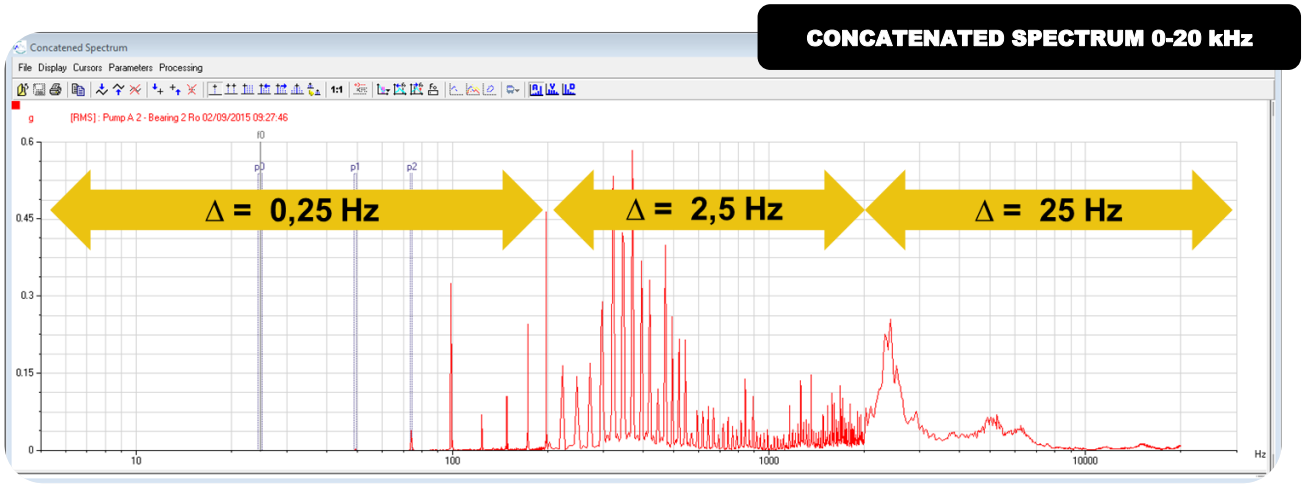
Defect Detection Grid	Matrix view	The Defect Detection Grid is the most productive data presentation available on the market for diagnosis purposes. All monitoring and diagnosis indicators are presented into a single matrix view: Measurement locations are presented in columns and parameters in rows with their alarm status. Once alarm thresholds are adjusted, the user can know at a glance if there is a defect and where it is located on the machine
Trending	Trending capabilities	Trends can be displayed on the whole measurement history for each parameter or on the filtered measurement history. Several plots can be added on a trend and information related to each plot is displayed.
	Trend per operating condition	Trends of each parameter can be filtered on measurement history based on the operating condition of the machine.
	Filter from trend	Data can be filtered from a simple trend: select the plots of the measurement controls to display from the trend and simply filter by a touch of a button
Standard Parameters managed	Scalar data	Overall vibration level (acceleration, velocity, displacement), bearing defect factor, Kurtosis, Smax (MVX), Air gap (MVX), Magnetic flux (MVX)
		Process data (kW, %, V, A, RPM, °C, Oil quality, etc.)
	Two-channel measurement	Overall vibration level, Spectrum, Phased spectrum
	Triaxial accelerometer measurement	Management of triaxial measurements for FALCON portable data collector or EAGLE online wireless sensor
	Oil analysis data	Oil analysis data (from oil quality sensor, or import of result from oil labs)
Type of signals managed	*Resolution and frequency analysis range related to each signal is selectable. The limitation may depend on the instrument to be used (FALCON, EAGLE, MVX)*	FFT
		Envelope spectrum and zoom
		Phased spectrum for vector measurement
		Time waveform
Dedicated technology	Defect factor	Indicator embedding ONEPROD expertise and representative of the bearing health condition of the machine
	Shock Finder (MVX)	Indicator embedding ONEPROD expertise to highlight the presence of abnormal periodic shocks and reveal mechanical faults at a very early stage
	Gearbox condition Indicator (MVX)	Automatic display of the GASTOPS METALCSAN particle counting sensor in NEST, along with the vibration and process information of the machine in the defect detection grid. *The GASTOPS METALSCAN interface has been tested and approved by GASTOPS.*
	Blade Guard Index (MVX)	Indicator dedicated to the wind turbine application allowing for the monitoring of the blade structure resonance in a very simple way
Post-processing	Automatic post-processing on FFT	Peak amplitude value; Broadband energy calculation
	Automatic post-processing on Envelope spectrum	Peak amplitude value; Broadband energy calculation
	Automatic post-processing on phased spectrum	Peak amplitude and phase values
	Automatic post-processing on time waveforms	Statistical Analysis, Kurtosis, Time wave duration (for shutdown recording profiles)
	Automatic post-processing on measurement history	Post-processing indicators can be defined at any time. ONEPROD NEST analyst offers the possibility to calculate the value of this indicator on the whole measurement history, thus providing you the ability to trend it over time, even if it has never been measured before.
	Modification of the rotation speed	If the rotation speed was not measured, it can be modified by the expert. All post-processing can be automatically recalculated for the given measurement date, taking into account the adequate rotation speed.
	Advanced alarm post-processing	Automatic advanced alarms can be post-processed: statistical analysis alarms, evolution compared to the previous date, evolution compared to a reference date, predictive trend analysis alarm.
Diagnosis-related features	Expert Recommendation	Summary and free description text to be filled in by the expert, associated to a measurement control date of the machine.
	Expert full diagnosis	Summary and free description text to be filled in by the expert, associated to a measurement control date of the machine.
	Automatic screenshot attachment	Measurement and diagnosis can be illustrated by adding screenshots of the graphic tool by a touch of a button. These pictures are automatically printed out in the reports
	Inspection picture attachment	Inspection pictures can be attached to a control date, either manually by the user or automatically if the measurement is coming from FALCON portable data collector. These pictures are printed out automatically in the reports
	Expert advice tag	Once the analysis is done, the expert can tag the measurement control with his/her advice, which will prevail on the alarm status of the machine according to the type of display selected in NEST: EXCELLENT, GOOD, FAIR, CRITICAL. Each advice tag is represented by a different colour code (GREEN, LIGHT GREEN, ORANGE, RED)

NEST Graphic tool capabilities

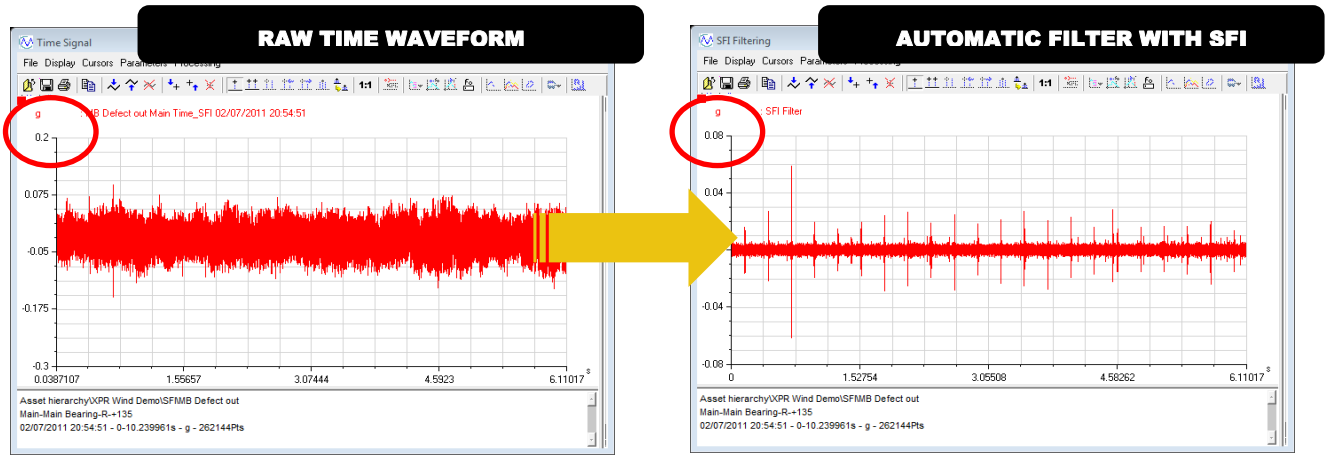
ONEPROD NEST graphic analysis tool offers powerful diagnosis capabilities, leaving the experts with the certainty to have all they need at hand to issue the most accurate diagnosis.

In addition to standard tools, ONEPROD NEST users also benefit from dedicated technology relying on years of experience in the field of vibration analysis of rotating machines

ONEPROD dedicated technology	Spectrum concatenation	The spectrum concatenation allows for the analysis of a single spectrum for each point including all frequency components with the best resolution (e.g., merging low frequency, middle frequency and high frequency spectra that were basically measured separately).
	Shock Finder Filter	The shock finder filter can be applied manually by post-processing in the ONEPROD NEST graphic tool. It embeds ONEPROD expertise to highlight the presence of abnormal periodic shocks and reveals mechanical faults at a very early stage.
	Bode Ellipse spectrum	Patented display allowing for reliable critical speed characterization when measuring the run-up / coast-down phase with FALCON
Data comparison	Reference control date	A reference control date can be defined by the user to facilitate the comparison with other data. It can be modified at any time, e.g., after each maintenance operation
	Superposition	Manual superposition of signals from the same measurement (different measurement location) or from different measurement controls in the history
		Automatic superposition with the reference measurement control date
		Automatic superposition with the previous measurement control date
		Automatic 3D waterfall view on the measurement history
		Quick display of single spectrum from the waterfall view
General display option	Multiple windows	Each signal is opened in a new window. Superposition is done manually
	Single persistent window	Each signal is opened in the same window. Superposition can be done automatically by multiple selection
	Frequency unit	Hz, RPM or Order
	Vibration unit preferences	IS or Imperial
	Cursor customization	Colour, thickness, texture, number of harmonics, number of sidebands, elementary displacement step
	Other settings	Background colour, X and Y gradation grid, gradation numerical format, printer margins
	User notes area	Possibility to add comments on any graph to be printed.



FFT	Plots	Simple cursor with indication of frequency and acceleration in 3 units (acceleration, velocity and displacement). Phase is also displayed for phased spectrum.
		Double cursor with indication of frequency and amplitude of each pointer and their distance. Indication of RMS value between cursors. Copy/paste function to position other double cursors with the same distance.
		Sideband cursor with adjustment of the number of lines Copy/paste function to position other cursors with the same distance
		Multi-cursor mode (several independent single cursors on the same graph)
	FFT Display options	Switch button to select the amplitude of the signal to display (automatic integration or derivation of the signal): acceleration, velocity or displacement
		Linear or logarithmic X and Y scales
		Frequency in Hz, RPM or Order
		Scales: automatic, fixed, zoom
		Amplitude in dB, EU or spectral density
		Amplitude RMS / Peak / Peak-to-Peak
	Post-processing	Cepstrum
	Characteristic frequencies	Automatic prepositioning of expected frequencies of the point or the whole machine. Automatic adjustment by post-processing if the rotation speed is modified.
	Bearing frequencies	Automatic prepositioning of bearing characteristic frequencies. Automatic adjustment by post-processing if the rotation speed is modified
Time waveform	Display options	Standard view, Circular view
	Orbit post-processing	3 modes: unfiltered, harmonic (H1, H2, H3), low pass
		Selection of time limits: manual or automatic (number of cycles)
	Filter post-processing	High pass, low pass, band pass, band cut, Shock Finder
	Auto spectrum post-processing	Automatic spectrum post-processing from the stored time waveform.
	Re-sampling	Time waveform decimation
Order analysis display (on measurements coming from FALCON Run Up Coast Down)	Bode diagram	Selection of harmonic 1 to 10 with possible superimposition
	Nyquist diagram	Selection of harmonic 1 to 10 with possible superimposition
	FFT display	Simple or waterfall
	Other type of display	Position (t), Position (RPM), Polar position, Orbit (filtered or not, with or without position), Ellipse spectrum, Ellipse Bode diagram, Waterfall Emax, rotation speed over time
Cross channel analysis (On measurements coming from FALCON FRF module)		Amplitude spectrum for channels 1 and 2
		Power spectrum for channels 1 and 2
		Coherence function
		2/1 and 1/2 transfer functions, Cross-spectrum in modulus, phase, real part, imaginary part
		Display on one or two plots
		UFF export for structure analysis software



Data management

FALCON

EAGLE

MVX

Compatibility	Portable data collector	All data coming from ONEPROD portable data collectors (FALCON, MVP-2EX), related to data collection features, are compatible and can be stored into the ONEPROD NEST database
	Online monitoring system	All data coming from ONEPROD MVX Online monitoring system are compatible and can be stored into the ONEPROD NEST database
	Online wireless monitoring system	All data coming from ONEPROD EAGLE Online wireless monitoring system are compatible and can be stored into the ONEPROD NEST database
	Oil analysis lab formats	BP Predict, Lubiana, Vernolab, IESPM, Pall (particles), Kittiwake Generic format for other laboratories
Backup	Manual	A database backup makes a full copy of all data within the database. It can be trigged at any time by an admin user
	Automatic	Database backups can be programmed, performed at a given periodicity (e.g., each week) and automatically exported to a selected location on the network.
Data volume limitation	Manual deletion	Measurement dates can be manually deleted from the history.
	Automatic deletion	Automatic data deletion tool is provided with NEST software to enable automatic smart data removal from the database, thus keeping the database to a reasonable size, and keeping the most relevant data in the history
	Data archiving	Data can be archived, which means removed from the database to shorten its size, but can be kept apart to be reinserted later on if necessary.
	Data protection	Measurement dates can be protected to avoid any hazardous deletion
		The access to deletion features is determined by the user profile. The functions are therefore not necessarily accessible to all users.
	Online storage limitation	Properties can be adjusted to store raw signals at a different periodicity than monitoring parameters for ONEPROD MVX, thus enabling a smaller database size and a more productive analysis.

Technical specifications & hardware requirements

Application server operating system	Desktop version	Windows XP Service Pack 3, Windows Vista Enterprise, Windows 7 Professional, Windows 8
	Intranet version	Windows 2003 Server Service Pack 2, Windows Server 2008 R2 SE, Windows Server 2012 R2 SE
Database	Desktop version	Proven and reliable Oracle database, widely accepted in throughout the industry, version Oracle 10g Database Server v10.2.0.1 (Release 2)
	Intranet version	Oracle 10g Application Server v10.1.2.3 (Release 3)
HMI related component	NEST ANALYST application server	Oracle Forms/ Reports Runtime v6.0.8.26.0 (patch 17) for Desktop version, Oracle AS Forms/Reports Services v10.1.2.3 for Intranet version
	NEST ANALYST Web client	Oracle Java Virtual Machine
	Other NEST modules	Microsoft silverlight plugin (only component required for use from any computer connected to the network)
Reporting	Reporting component	Oracle Business Intelligence Publisher (BI Publisher) v10.1.3.4.1, Oracle reporting solution.
Network	Connection type	Ethernet 100 Mb/s or 1 Gb/s; Wi-Fi compatible; 3G compatible for use with MVX online monitoring system
	Multiple network management	Management of 2 networks is compatible with the use of ONEPROD NEST software
Related software component	Microsoft components	Internet Information Services (IIS) must be installed from Windows DVD for the ONEPROD NEST application server only
		.NET Framework version 2.0 is included and installed with ONEPROD NEST ANALYST
	Internet browser	Internet Explorer 7.0 or sup. is recommended
	E-mail server (for automatic notification)	A dedicated e-mail server is required. Agrosoft server or equivalent is recommended. For more information, check http://www.argosoft.com
	PDF file	Acrobat Reader or equivalent is recommended
	OPC	OPC DA v2.05/v3.0
Server requirements	Desktop computer minimal configuration	Intel® Core™ I processor / RAM 2GB / Hard drive 160 GB, 7200 RPM / 1600x1200 display / 2 free USB ports. This configuration may be upgraded with better performances for online installation
	Intranet server minimal configuration	Intel® Xeon / RAM 4GB / Hard drive 160 GB, 7200 RPM / 1600x1200 display / 2 free USB ports This configuration may be upgraded with better performances for online installation and configuration with more than 5 concurrent users.

NEST Versioning

ONEPROD NEST is packaged according to 3 levels of functionalities to better fit what the user needs and provide a cost effective solution.

NEST is a common platform that can be used with all instruments of the ONEPROD range.

Feature \ NEST VERSION	EASY	ADVANCED	PREMIUM
SUPERVISION module			
MACHINE SETUP module with access to drag & drop tool and to the bearing database			
ADMINISTRATION module			
ANALYST module with standard EASY features: - Access to the vibration 2DG (Defect Detection Grid) - Quick Access to the raw signals (Signals Status Screen) - Access to NEST graphic analysis tool - Automatic reporting capabilities - Management of operating conditions for variable speed machines - Automatic notification (e-mail / sms) - Access to the Search & Modify tool	●	●	●
ANALYST module - ADVANCED features: - Automatic post-processing on measurement history - Automatic extraction of peaks from spectra - Automatic extraction of amplitude and phase from phased spectrum - Automatic extraction of broad band parameters from spectra - Oil Analysis Lab Result Import - Images attachment to measurement controls for automatic report illustration	O	●	●
ANALYST module - PREMIUM features: - Automatic post-processing of advanced alarms thresholds (evolution, statistic, predictive) - Automatic post-processing of parameters on time signal (Kurtosis, statistical analysis) - Automatic arithmetic combination of scalar parameters - Automatic logical combination of parameters (AND, OR) - Automatic signal post-processing on frequency signal: Cepstrum, Auto Correlation, 1/n octave - Automatic signal post-processing on time signal: Filtering, FFT (Auto spectrum) - Automatic Thresholds Setup Wizard (based on measurement history)	O	O	●
Architecture			
Desktop version (single database)	●	●	●
Intranet version (network database)	O	O	O
Additional intranet users	O	O	O
Instrument activation			
FALCON activation with COLLECT and COLLECTION modules, and automatic setup for automatic diagnosis mode	O	O	O
MVX activation with MVX Driver (incl. Modbus TCP input management) and the INSTRUMENT module	O	O	O
EAGLE activation with EAGLE driver (incl. Modbus TCP input management)	O	O	O
Other options			
OPC Server option	O	O	O
OPC Client option (with MVX)	O	O	O

Not accessible	
Option	O
Included	●